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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Angus Peter Robson

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EXAMINER

CHUKWURAH, NATHANIEL C

ART UNIT

PAPER NUMBER

3721

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/532,572	Applicant(s) ROBSON, ANGUS PETER	
	Examiner NATHANIEL C. CHUKWURAH	Art Unit 3721	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 34-56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/19/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the amendment filed on 12/19/2007.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 34-36, 38, 41-47 and 56 are rejected under 35 U.S.C. 102(b) as being anticipated by Minotti et al. (US 6,439,317).

With regard to claim 34, the patent to Minotti et al. discloses a hammer assembly, including a housing (14), a substantially elongated hammer (16) having first and second tool ends (Fig. 12) capable of extending through the lower opening the housing, a drive mechanism (156, 172).

With regard to claim 35, the hammer (16) includes two protrusions (78, 88) on hammer's opposing faces.

With regard to claim 36, the protrusions are located on a common hammer face as shown in Figure 12.

With regard to claim 38, the hammer housing is attached to machine (Fig. 9), the drive mechanism is enclosed within the housing (see Fig. 2).

With regard to claim 41, the hammer is adapted to drop under gravity.

With regard to claim 42, the hammer drive mechanism includes means (80, 156) for engaging and driving the hammer.

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With regard to claim 43, the hammer assembly operates as claimed.

With regard to claim 44, the hammer is cylindrical (Fig.12).

With regard to claim 45, the hammer is multifaceted.

With regard to claim 46, the opposing hammer tool (88) ends are non-identical.

With regard to claim 47, the hammer is capable of accommodating tool end of varying shaped.

With regard to claim 56, the reference of Minotti et al. anticipates the claimed structure as in the limitations and method as claimed.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 34-36, 38-47 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacOnochie (US 4,838,363) in view of Minotti et al.

With regard to claim 34, the reference of MacOnochie discloses a hammer assembly (10), including: a housing (110, 112); a hammer (12, 134) received in the housing; and a drive mechanism (20 motor) for reciprocating the hammer (12), the hammer is capable of being removed from the housing, reversed and replaced in the housing, enabling either of the first and second tool ends orientated to extend through the lower opening end in the housing to be interchanged. MacOnochie discloses most of the elements claimed in the present invention as shown above except for the substantially elongated weight with first and second tool ends, each

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tool end capable of extending through a lower opening end in the housing to strike the working surface. Minotti et al. teach a hammer assembly including a substantially elongated hammer (16) having first and second tool ends (Fig. 12) capable of extending through the lower opening the housing. In view of the teaching Minotti et al., it would have been obvious to one skilled in the art to replace the hammer (12) of MacOnochie with Minotti et al.'s hammer in order to provide one integral hammer assembly for the purpose of breaking a paved surface.

With regard to claim 35, the modified MacOnochie's hammer includes at least one protrusion on (78, 88 Minotti et al.) adapted for engagement with the drive mechanism (20). One protrusion satisfies the limitation since the applicant's drawing shows only one protrusion (7).

With regard to claim 36, see claim 35 rejection as set forth above.

With regard to claim 38, the modified apparatus of MacOnochie includes the housing being configured inherently for attachment to an articulated arm of an excavator or other machine and the drive mechanism is enclosed within the housing. See also Fig. 1 of Kennedy, deceased et al.

With regard to claims 39 and 40, the modified MacOnochie reference further including a resilient gasket (130) considered to be a cushion fixed near the opening end of the housing (110, 112) capable of engaging a protrusion.

With regard to claim 41, the modified MacOnochie hammer is adapted to drop under gravity (free fall col. 5, line 10) toward the opening end of the housing before striking the working surface of bit (134).

With regard to claim 42, the modified MacOnochie drive mechanism (motor 20) includes means (cable 14) for engaging and driving the hammer (12) from the housing to strike the working surface of the bit (134).

With regard to claim 43, the modified MacOnochie hammer is propelled to strike the working surface of the bit (134) by gravity (free fall col. 5, line 10) and by engagement with the drive mechanism (20 motor).

With regard to claim 44, the modified MacOnochie hammer is cylindrical as shown in Figure 1.

With regard to claim 45, the modified MacOnochie hammer is multifaceted (upper and lower faces Fig. 1).

With regard to claim 46, the modified MacOnochie opposing tool ends (see Fig. 1) are non-identical (flat and tipper ends Fig. 1).

With regard to claim 47, the hammer assembly of the modified MacOnochie is capable of accommodating tool end of varying shaped.

With regard to claim 56, the reference of MacOnochie would include the claimed method, for example, withdrawing hammer from housing, orienting and reinserting the hammer.

6. Claims 37 and 48-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacOnochie in view of Minotti et al. and further in view of Kennedy, deceased et al. (US 5,012, 873).

With regard to claim 37, the modified MacOnochie reference discloses the claimed subject matter including a protrusion as shown in the rejection above and the drive mechanism

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except a loop of chain having at least one dog. The reference of Kennedy, deceased et al. teach a loop of chain (33) having at least one dog. In view of the teaching of Kennedy, deceased et al., it would have been obvious to one skilled in the art at the time of the invention to replace the cable of MacOnochie's reference in order to minimize breakage provide the advantage, for example, of adjusting the tension of chain.

With regard to claim 48, the modified MacOnochie drive mechanism configured to lift the hammer includes at least two sprockets, and at least one dog and a chain as disclosed in Figure 3 of Kennedy, deceased et al.

With regard to claim 49, the modified MacOnochie apparatus includes a dog (31, 32 Kennedy, deceased et al. Fig. 2) attached to a chain (33 Kennedy, deceased et al. Fig. 2) and is adapted to engage the protrusion (37 Kennedy, deceased et al. Fig. 2).

With regard to claim 50, the chain of the modified MacOnochie apparatus is adapted to be rotated around the at least two sprockets as disclosed in Kennedy, deceased et al. Fig. 2).

With regard to claim 51, the sprockets, dog and chain of the modified MacOnochie apparatus would be aligned substantially parallel to the hammer for the hammer to strike directly to the tool bit.

With regard to claim 52, the sprockets, dog and chain of the modified MacOnochie apparatus would be aligned substantially perpendicular to the hammer as viewed in different orientation.

With regard to claim 53, MacOnochie's apparatus further including a connecting apparatus (a resilient gasket 130) between the hammer and the hammer housing.

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With regard to claim 54, the connecting apparatus (a resilient gasket 130) is capable of elastic deformation.

With regard to claim 55, the connecting apparatus (a resilient gasket 130) is deemed detachable.

Response to Arguments

7. Applicant's arguments with respect to claims 34-56 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Refer to attachment for notice of references cited and recommended for consideration based on their disclosure of limitations of the claimed invention.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathaniel C. Chukwurah whose telephone number is (571) 272-4457. The examiner can normally be reached on M-F 6:00AM-2:30PM.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada can be reached on (571) 272-4467. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. C. C./

Examiner, Art Unit 3721

3/21/2008.

/Rinaldi I Rada/

Supervisory Patent Examiner, Art Unit 3721